

Notice of Allowability

Application No.

10/090,234

Applicant(s)

MCCARTHY ET AL.

Examiner

Art Unit

Barry W. Taylor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/3/04.
2. ☒ The allowed claim(s) is/are 1-30.
3. ☒ The drawings filed on 04 March 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Barry W. Taylor
Primary Examiner
Technology Center 2600

DETAILED ACTION

EXAMINER'S AMENDMENT AND REASON FOR ALLOWANCE

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joel Wall (508-625-1323) on 8/24/05. The application has been amended as follows:

EXAMINER'S AMENDMENT

1. Claim 1, line 3. Delete "centering" and substitute "center" therefor.

Claim 1, line 13. Delete "caller" and substitute "call" therefor.

Claim 7, line 3. Delete "centering" and substitute "center" therefor.

Claim 7, line 14. Delete "caller" and substitute "call" therefor.

Claim 13, line 3. Delete "centering" and substitute "center" therefor.

Claim 13, line 15. Delete "caller" and substitute "call" therefor.

Claim 14, line 3. Delete "centering" and substitute "center" therefor.

Claim 14, line 13. Delete "caller" and substitute "call" therefor.

Claim 20, line 4. Delete "centering" and substitute "center" therefor.

Claim 20, line 15. Delete "callers" and substitute "call" therefor.

Claim 26, line 3. Delete "centering" and substitute "center" therefor.

Claim 27, line 3. Delete "centering" and substitute "center" therefor.

Claim 28, line 3. Delete "centering" and substitute "center" therefor.

Claim 29, line 3. Delete "centering" and substitute "center" therefor.

Claim 30, line 1. Insert "stored in a computer readable medium" after "product".

Claim 30, line 4. Delete "centering" and substitute "center" therefor.

Allowable Subject Matter

2. Claims 1-30 are allowed.
3. The following is an examiner's statement of reasons for allowance.

Prior art of record fails to teach a system, apparatus and method of monitoring performance of an interactive response system (IVR) used by an automated call processing center, a call from a caller to the call processing center including an initial interactive voice response portion of the call and at the caller's option, an agent-caller dialog portion of the call, wherein each independent claim (claims 1, 7, 13-14, 20 and 26-30) require, inter alia, determining at least one effectiveness quantity by comparing a reason for a call or contact implied from the routing information related to the call to a true intention of the caller determined from the agent-caller dialog portion of the call or contact; generating a performance model of the IVR system from the logs of call activity and analyzing the logs of call activity, the determined routing information, the at least

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one effectiveness quantity and the performance model to determine a performance value of the IVR system, wherein the performance value is used to monitor the IVR system.

Prior art (Cave et al---US 5,822,401) relates to statistical diagnosis in IVR telephone systems but only monitors the IVR portions of a call and is completely silent with respect to recording agent-caller dialog portion of the call and fails to teach or fairly suggest determining a true intention from such agent-caller dialog portion of the call.

Prior art (Holthouse et al---US 6,606,598) relates to statistical computing and reporting for interactive speech applications by using call log for agent-caller dialog and asking caller for true intentions because detecting performance problems of IVR systems are difficult and by asking caller for true intention helps identify misleading prompts, incorrect pronunciations, or vocabulary words that are similar enough to be confused with each other but is silent with respect to determining at least one effectiveness quantity by comparing a reason for a call or contact implied from the routing information related to the call to a true intention of the caller determined from the agent-caller dialog portion of the call or contact; generating a performance model of the IVR system from the logs of call activity and analyzing the logs of call activity, the determined routing information, the at least one effectiveness quantity and the performance model to determine a performance value of the IVR system, wherein the performance value is used to monitor the IVR system as recited in independent claims 1, 7, 13-14, 20 and 26-30 and shown in figure 16.

Peterson et al (US 6,879,685) teaches an apparatus and method for analyzing routing of calls in an automated response system.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor, telephone number (571) 272-7509, who is available Monday-Friday, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached at (571) 272-7499. The central facsimile phone number for this group is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Centralized Delivery Policy: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the central fax number (**571-273-8300**).



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